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ABSTRACT

Since 1969 when it was mandated by Congress, the National Assessment of Educational Progress (NAEP) has gathered information about the performance of 9-, 13-, and 17-year-old students in many subject areas, but most frequently in reading. Designed to reflect current developments in reading theory and research, this booklet describes the objectives used to guide the construction of the 1990 NAEP's measurement of reading proficiency. Chapter titles include: "Design of the 1990 Reading Assessment"; (2) "Modes of Reading Comprehension"; (3) "Text Categories"; (4) "Development of Cognitive Items"; (5) "Factors Influencing Comprehension"; and (6) "Development of Background Items." (A list of participants in the development process and sample items are attached.) (RS)

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READING OBJECTIVES

1990 ASSESSMENT

CS009684

EDUCATIONAL TESTING SERVICE

THE NATION'S REPORT CARD NAEP

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READING OBJECTIVES

1990 ASSESSMENT

APRIL 1989

The Nation's Report Card,
The National Assessment of
Educational Progress (NAEP)

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Chapter one

Introduction

The National Assessment of Educational Progress (NAEP), a project mandated by Congress, began in 1969 to assess the status and progress of education in the United States. Since then, NAEP has gathered information about the performance of 9-, 13-, and 17-year-old students in many subject areas, but most frequently in reading. The attention accorded to reading reflects its important role in learning across all subject areas. In the 1989-90 school year, The Nation's Report Card will assess the reading competencies of 9-, 13-, and 17-year-olds, as well as students in grades 4, 8, and 12, the modal grades for these ages.[1] Additionally, NAEP legislation passed by Congress in 1988 mandates biennial national assessments of reading and includes a provision for a voluntary trial program of state-level reading assessments at grade 4 in 1992 to provide information to participating states about their students' reading abilities.

[1] Previous NAEP reading assessments were conducted during the school years 1969-70, 1973-74, 1978-79, 1983-84, 1985-86, and 1987-88. For convenience, each assessment will be referred to by the last half of the school year in which it occurred — 1970, 1974, 1979, 1984, 1986, and 1988.

Context for Planning the 1990 Reading Assessment

Planning for the 1990 reading assessment began during a period of substantial and well-warranted concern that an alarming number of American students were underprepared for the complex literacy demands of an increasingly technological world. In the 1980s, educators and policymakers confronted the finding that too many students leave school unable to read and write adequately. Concern was expressed not only for students' intellectual and economic well-being, but also for their ability to participate fully in a complex, information-based society.

As they realized the magnitude of the nation's literacy problems, educators and policymakers began to seek remedies. Growing numbers of state legislatures mandated minimum reading competency tests for students in public schools, for students wanting to pursue upper-division college studies, and for pre-service and experienced teachers. Frequent public interest announcements on television advertised the availability of community services to help adults improve their reading skills and stressed the value of parental involvement in children's education.

At the same time, research on reading and writing expanded educators' understanding of how children initially acquire literacy skills and how these skills develop and can be nurtured across time. Federal support for the Center for the Study of Reading, the Center for the Learning and Teaching of Literature, and the Center for the Study of Writing affirmed a national concern for literacy issues, while reports such as *Becoming a Nation of Readers*, published by the National Academy of Education and the Center

for the Study of Reading, challenged educators and the public at large to rethink current approaches to reading instruction.

The NAEP Consensus Development Process

In reading, as in other subject areas, NAEP addresses the perennial questions of what to assess and how to do so through a consensus process involving curriculum specialists, teachers, school administrators, researchers, parents, concerned citizens, public officials, and business leaders. For the 1990 reading assessment, NAEP's Assessment Development Panel reviewed the structure of the 1988 reading assessment and recommended certain modifications. In particular, efforts were made to integrate new theory and research on the learning and teaching of reading and to reflect innovative approaches to reading assessments developed in Michigan and Illinois as part of their state assessment programs.[2]

Throughout the development process, the reading objectives were reviewed by members of the Assessment Development Panel and Item Development Panel and by outside consultants representing various constituencies, including members of professional organizations, teachers, school officials, and interested lay persons. (See page 46 for a list of participants.) While objectives resulting from such a

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[2] The International Reading Association passed a resolution on assessment at its 1988 annual conference, stating, in part : "RESOLVED that . . . reading assessments reflect recent advances in the understanding of the reading process . . . [and that] assessment measures defining reading as a sequence of discrete skills be discouraged."

Michigan State Board of Education, *Blueprint for the New MEAP Reading Test* (Lansing, MI, 1987).

Illinois State Board of Education, *Assessing Reading in Illinois* (Springfield, IL, 1988).

consensus process reflect neither a narrowly-defined theoretical framework nor every view of every participant, they do represent the thinking of a broad cross-section of individuals who are expert in the areas of literacy research and reading instruction and who are deeply committed to the improvement of reading in our schools.

Summary

In the 1989-90 school year, the National Assessment of Educational Progress will measure the reading proficiency of 9-, 13-, and 17-year-olds, as well as students in grades 4, 8, and 12. As with other NAEP assessments, the 1990 reading assessment has been developed through a consensus process involving curriculum specialists, teachers, school administrators, researchers, parents, concerned citizens, public officials, and business leaders. The objectives presented herein were designed to reflect current developments in reading theory and research and used to guide the construction of a complete and balanced assessment.

Chapter two

Design of the 1990 Reading Assessment

Guiding Concept of Reading

Central to the development of the 1990 reading assessment has been the conviction that pedagogy and assessment should be based on an interactive view of reading in which factors related to the text, the situation, and the reader influence comprehension. In this view, comprehension may be influenced by:

- ★ the type of material being read;
- ★ the purposes or goals for reading; and
- ★ the characteristics of readers, including their attitudes, knowledge, and understandings, and their ability to use successfully the reading strategies needed to achieve comprehension.

Although these variables are intertwined and their interactions cannot readily be distinguished in actual reading, they are separated here for purposes of elaboration and discussion.

Type of Reading Material. The characteristics of the material being read — for example, its genre, structure, content, and level of difficulty — influence

the choice of reading strategies and the ability to achieve comprehension. Different literary forms and genres present different kinds of reading challenges. For example, essays, chapters in a textbook, magazine articles, and schedules may convey the same content in vastly different ways, having different purposes, formats, types of description, and supporting evidence. At an even finer level, different types of fiction — such as mysteries, historical fiction, romantic novels, and science fiction — pose different reading challenges, even though they are all examples of one broad literary category.

Purposes for Reading. The purposes for reading may be defined by the individual, according to personal goals and interests, or they may be externally defined. Different purposes may require very different reading strategies. For example, quietly curling up with a good book may be very different from reading to complete an assignment or using a repair manual to solve a mechanical problem. Readers may proceed steadily through text when reading for leisure, scrutinize text when studying for an exam or following instructions, or engage in a kind of intellectual browsing when scanning text to learn what is intriguing at the surface level.

Attitudes Toward Reading. Reading habits and values exhibited in the home, role models presented by adults and older children, and the variety of literacy activities fostered both in and out of school influence how children view reading. These elements help to shape students' ideas about why people read, what can be gained from reading, and the extent to which mastering reading skills should be valued.

In an environment that supports reading, students' appreciation of reading should grow throughout their

school years. However, if they are only marginally aware that reading can be pleasurable and informative, students are unlikely to choose reading over other activities. In contrast, individuals with a higher level of appreciation may actively seek opportunities to read at home or at school, buy books and magazines, borrow material from the library, and discuss what they read with friends and family.

Content Knowledge. Readers' prior knowledge of the content of the material they read influences their success in deriving meaning from text and their ways of reasoning about the information they encounter. Familiarity with a topic allows readers to relate new information to what they already know, thus increasing their knowledge base. Conversely, reading a passage on an unfamiliar topic may require readers to proceed more deliberately through the text as they assimilate new information and ideas.

Knowledge of Text Structures. Able readers — consciously or subconsciously — tailor their reading strategies to various genres by using the predictable elements of structure associated with each type. For example, even beginning readers have a sense of story structure that guides their attention to such elements as character, setting, and plot in even the simplest story. As students become more advanced readers, they become more attentive to the organizational patterns and rhetorical devices found in many different types of text.

Repertoire of Reading Strategies. In conjunction with content and topic knowledge, readers must also know *how* to read; that is, they must possess a working understanding of reading strategies and their appropriate use. Skilled readers have many strategies

in their repertoire and can therefore be flexible in their approach to both new and familiar reading situations. For example, these readers know that examining letter-sound correspondences, using context clues, or breaking words into syllables are all tools to help decode new words, and they are likely to employ each tool at appropriate points in reading a text. Poor readers, on the other hand, are likely to be limited to a few strategies that they use again and again regardless of their effectiveness. Thus, readers' repertoire of strategies to gain meaning, knowledge of which ones will work in various situations, and confidence in trying different strategies are all variables that may influence comprehension.

Framework for the Assessment

Based on this interactive definition of reading, a framework was created for the 1990 reading assessment. Presented in Figure 1, the framework reflects the association between the two dimensions of reading highlighted in the assessment: Type of Text and Mode of Comprehension.

Figure 1
Framework for the 1990 Reading Assessment

	TYPE OF TEXT		
	Informational Text	**Literary Text**	**Documents**
MODE OF COMPREHENSION	Constructs Meaning	Constructs Meaning	Locates or Compares Information
	Extends or Examines Meaning	Extends or Examines Meaning	Evaluates Information

Although the purposes for reading and the characteristics of the reader also influence reading comprehension, these elements cannot be fully addressed in this assessment. Efforts have been made, however, to develop assessment tasks that simulate some of the purposes for which students read — for example, reading to enjoy a story, to follow instructions, or to complete an assignment. In addition, a small set of background questions will provide information on readers' characteristics.

Whether one is reading informational material, literary text, or documents, the mode of reading — and, therefore, comprehension — may vary. The Assessment Development Panel defined two modes of comprehension in the framework for the 1990 assessment. In informational and literary text, these dimensions are labeled "constructs meaning" and "extends or examines meaning." Because many reading researchers believe that comprehending documents requires reading strategies that are different from those required by informational or literary text, the modes of comprehension that are salient in reading documents are labeled differently, as "locates or compares information" and "evaluates information." Although they are distinguished in the framework, most reading actually involves a blending of the two modes defined here, and the dashed line in Figure 1 reflects this view.

Weightings for the Assessment

In developing weightings for each dimension of the framework, the Assessment Development Panel and the Item Development Panel based their decisions primarily on the need to consider those aspects of reading (e.g., content, genre, format) typically empha-

sized at each grade level and to reflect these emphases in the distribution of assessment questions. The approximate percentage distribution of questions for each dimension, by grade level, is provided in Tables 1 and 2.

Table 1: Approximate Percentage Distribution of Assessment Items by Mode of Reading Comprehension

Mode of Reading Comprehension	Grade 4	Grade 8	Grade 12
Constructs Meaning; Locates or Compares Information	70	70	70
Extends or Examines Meaning; Evaluates Information	30	30	30
Total	100	100	100

Table 2: Approximate Percentage Distribution of Assessment Items by Type

Type of Text	Grade 4	Grade 8	Grade 12
Informational Text	40	50	55
Literary Text	40	30	20
Documents	20	20	25
Total	100	100	100

The two modes of reading comprehension and the three types of text included in the assessment are described in Chapters 3 and 4, respectively.

Summary

The 1990 reading assessment is guided by a view of reading as a multi-faceted process involving interactions between readers, the texts they encounter, and the purposes for reading. Many factors influence the success of these interactions, and a recognition of these factors underlies the development of the 1990 assessment.

Based on this view of reading, the Assessment Development Panel created a framework for the assessment. The structure of this framework reflects the relation between the types of text and aspects of comprehension that students typically encounter in actual reading. Weightings were then assigned to each dimension of the framework to guide the item development process.

Chapter three

Modes of Reading Comprehension

Comprehension is the primary goal of reading and therefore the cornerstone of the 1990 reading assessment. As described in the preceding chapter, the reading process — and, therefore, comprehension — is influenced by a range of factors related to the nature of the text, the purposes for reading, and the reader. Thus, there are many facets of comprehension, only some of which can be sampled in a single survey.

The 1990 NAEP reading assessment is structured to examine comprehension as it occurs in two modes of reading: "Reads to Construct Meaning" and "Reads to Extend or Examine Meaning." In documents, these modes are labeled "locates or compares information" and "evaluates information," respectively, to reflect the different strategies involved in reading documents.

Although most actual reading experiences involve a blending of reading strategies, the extremes are highlighted here to clarify the distinction between the two modes of reading. At one extreme, reading solely to construct meaning is characterized by reading behaviors that allow individuals to understand text in a general or cursory manner. These include such behaviors as identifying themes, noticing relevant

details, and summarizing topics. Also at this end of the continuum are behaviors that allow readers to focus on particular information — for example, locating facts or cross-referencing specific ideas in the text.

In contrast, behaviors clustered at the other extreme are those that allow readers to broaden and deepen their comprehension, or to extend and examine meaning. These reading behaviors include such processes as inferring linkages among ideas or events, predicting outcomes, or evaluating the quality of arguments presented in the text.

In the interactive view of reading that underlies the assessment design, the mode of reading chosen may vary with readers' purposes, their background knowledge, and the characteristics of the text itself. For example, in reading a biography, readers interested in understanding events in the subject's life in their larger historical and sociological context will likely read the text more closely and critically (i.e., reading to extend or examine meaning), whereas readers interested only in knowing a few details about a subject's life may be satisfied by a cursory reading (i.e., reading to construct meaning). Alternatively, the mode of reading chosen may vary according to the nature of the biography itself — for example, its length, the manner in which it is written, and the author's background or biases.

Most often, readers use a combination of behaviors from both of these modes of reading. Thus, as elaborated below, the distinction between the two modes may best be described in relative terms.

Reads to Construct Meaning

As discussed in the previous chapter, readers may approach any piece of text with different goals or intentions. Often, they read primarily to construct meaning. In this mode, readers direct their efforts toward building a general model of the text's meaning and significance based on their expectations, existing knowledge, and perceptions of the new information encountered during the reading process. Their primary purposes are to find the gist of the author's message, capture details of personal interest or immediate importance, review major themes and main ideas, recognize similarities or differences with their own ideas or other texts they have read, or evaluate the text's potential to provide opportunities for learning or enjoyment. Alternatively, individuals may read to ascertain general linkages among events in a story, a historical account, or a biological process.

The 1990 assessment includes items designed to have readers construct general meanings from text of varied kinds and levels of difficulty. For informational texts, typical items focus on main ideas, author's purpose and related sequences of details, relations among various parts of the text, support for conclusions or inferences, and relations between problems and their resolution. For stories, typical assessment items focus on themes, important elements in the plot, setting details, character traits and motives, and logical predictions. For documents, readers are asked to use facts, symbols, and spatial relations to perform tasks that simulate real-life situations requiring the use of documents — such as completing a form or determining plans based on a schedule of events.

Reads to Extend or Examine Meaning

Consciously or subconsciously, readers sometimes shift to a more intensive and analytic mode of reading in which they purposefully try to extend or examine meaning. This mode involves more careful and thoughtful reading than the mode described above. In reading to extend or examine meaning, readers may delve deeply into the text, trying to fill in details that embellish their general understanding, explore relations among ideas that are not immediately apparent, and use their existing knowledge to establish new connections with ideas from the text. They may read for nuances to predict outcomes, infer links in a causal chain of reasoning, evaluate the text according to explicit or implicit criteria, or develop and test their inferences.

The 1990 assessment includes items designed to have readers extend and examine the meaning they derive from various kinds of text. For informational texts, typical items focus on noting similarities and contrasts in the information presented within a single text or across multiple sources. For example, students may be asked to compare and contrast different eras in history, evaluate the relative efficiency of various energy sources as discussed in a science text, or draw generalizations about the labor movement from separate descriptions of three labor protests. For stories, typical items focus on analyzing themes, inferring motives for a character's actions, or identifying the subtle impact of the setting on the reader's interpretation. For documents, typical items ask students to evaluate and make decisions based on the information presented through text and graphic elements.

Summary

In the 1990 assessment, readers' comprehension of literary and informational text will be measured in two modes — reading to construct meaning and reading to extend or examine meaning. At one extreme, reading to construct meaning is characterized by such behaviors as searching for particular facts, skimming, or reading for the gist. At the other extreme, reading to extend or examine meaning features such behaviors as inferring motives, predicting outcomes, or relating information in the text to personal experience. Although these extreme examples are useful in clarifying the distinction between the two modes of comprehension, most actual reading involves some combination of these modes.

Readers' ability to locate or compare information and to evaluate information from documents will also be measured in the assessment. The modes of comprehension in documents are labelled differently from those in informational and literary text because documents often include less emphasis on print and more emphasis on graphic elements, and therefore require the use of different reading strategies.

Chapter four

Text Categories

In keeping with the NAEP assessments of the past, the 1990 reading assessment measures students' reading comprehension based on an array of passages, ranging from textbook materials, documents, and news articles to poems, essays, and stories. The Assessment Development Panel considered these materials as belonging to three categories: informational text, literary text, and documents. Although there may be instances in which the distinctions between these text categories are blurred — for example, some literary passages provide extensive information and certain informational passages may be written in a literary manner — NAEP staff and consultants perceived that most passages fit satisfactorily into one category or another.

The Assessment Development Panel chose to highlight informational text, literary text, and documents because these categories represent the types of materials that students commonly encounter in and out of school and are expected to be capable of reading. A knowledge of how to read informational text allows students to study school textbooks in various content areas, glean information from trade publications, and use reference materials successfully. The ability to read and understand various kinds of literary text is thought to enrich students' lives and

increase their awareness of the variety of ways in which human experience can be expressed. And although documents typically contain less text and more graphic elements than informational or literary materials — and therefore involve different reading strategies — the ability to extract meaning from materials such as maps, charts, and schedules is an important form of literacy.

The reading passages within each text category were derived from a range of sources and the items were designed to focus on the aspects of comprehension defined in the previous chapter. The particular features of informational comprehension, literary comprehension, and document literacy — and the passages and questions designed to measure them — are described in the sections that follow.

Informational Comprehension. School texts in different subject areas such as history and science present what are often termed "content area reading" tasks, which require informational comprehension. Informational text can also be found in a range of other sources, including non-fiction trade materials, how-to or hobby books and magazines, and reference sources.

The structural organization of informational text tends to be different from that of narrative and other literary material. For example, certain paragraph structures predominate in informational text, including enumeration, generalization, comparison and contrast, sequence, cause and effect, and question and answer. Introductory sentences, key words — for example, "first," "then," "in contrast," or "as a result" — and other devices help readers to recognize various paragraph structures and to organize the information presented. Topics are typically developed over the course of several paragraphs, and textual aids such

as headings or marginal notes are often provided as organizational aids. Thus, knowing the structure of various kinds of informational text helps readers achieve comprehension. Readers can learn to anticipate particular organizational patterns in various types of informational text and to use these patterns to guide their thinking and reading.

The vocabulary load presented by informational text is also different from that in literary text. Each content area has a specialized and often technical vocabulary, and most hobbies and special interests have their own idiomatic expressions and slang. Mathematical and scientific symbols in informational text can present additional reading challenges. Familiarity with the terminology specific to a subject area therefore makes reading easier and more profitable.

The types of informational text included in the 1990 assessment represent the kinds of reading students encounter in course work and in their independent reading, such as textbooks, tradebooks, and children's magazines and newspapers. Assessment items based on these materials ask students to demonstrate their understanding of such aspects of a passage as central purpose and point of view, differentiation between facts and opinions, and quality of supporting evidence, as well as their ability to use various textual aids.

Literary Comprehension. Even young children have some understanding of the structure of literary materials, and this sense of story or poem becomes increasingly sophisticated with added reading experiences. Although spanning many different genres and modes of presentation, literary materials often include distinctive conventions pertaining to the range of topics and ideas that can be presented, events that can take place, legitimate behavior for characters, the

kinds of motivation that characters possess, the patterns of evaluation that readers impose, and the rhetorical style and vocabulary range that are used.[3]

As they sample wider varieties of poetry and prose, children expand their expectations and tolerance and come to accept that authors make a range of choices in presenting their ideas. Settings and characters may be realistic or imaginative, familiar or fantastic; no matter whether people ride on flying carpets or animals talk, the structure and conventions in literary text help to guide the construction of meaning.[4]

Literary passages for the assessment include short stories, poems, fairy tales, fables, realistic and historical fiction, science fiction or fantasy, and other literary genres. Items assessing literary comprehension ask students to identify themes (both stated and implied); discuss character motivations; consider the interaction of settings, plots, and moods; and predict events. Students may also be asked to convey their understanding of the author's craft, including the use of various literary devices.

Document Literacy. In addition to informational and literary materials, the assessment measures students' comprehension of a variety of specialized documents appropriate for each age level. This category includes materials such as directions, schedules, schematics, graphs, charts, or maps, all of which students are likely to encounter both in their school work and in out-of-school pursuits.

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[3] Aidan Warlow, "Kinds of Fiction: A Hierarchy of Veracity," in Margaret Meek, Aidan Warlow, and Griselda Barton, eds., *The Cool Web* (London: The Bodley Head, 1977).

[4] Arthur N. Applebee, *The Child's Concept of Story* (Chicago: University of Chicago Press, 1978).

The overarching purpose of documents is to provide information so that it can be readily understood; most documents do so with minimal print and with a combination of symbols and spatial arrangements.[5] The layout and sequence of text and graphic elements within a document influence comprehension. In some documents, lines and arrows are used to indicate simultaneous action, energy release, or reactions, and readers must translate these and other symbols as they scan the contents of a document for relevant information. Processing documents successfully therefore requires that readers draw upon specialized locational skills in addition to the strategies involved in reading written text.

The 1990 assessment features the kinds of documents students are likely to encounter in their school work and in independent activities. Some, like subscription forms, are functional; others, such as graphs and charts, convey information in particular content areas. Items assessing students' document literacy ask them to engage in direct searches of information and to integrate and evaluate various components of the documents presented.

Summary

The 1990 reading assessment is designed to measure students' ability to comprehend literary text, informational text, and documents. Within each text category, passages are selected to reflect the kinds of reading that students do in and out of school, and the items are designed to focus on the aspects of comprehension highlighted in the previous chapter.

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[5] John T. Guthrie, "Locating Information in Documents: Examination of a Cognitive Model," *Reading Research Quarterly* 23 (1988), 178-99.

Chapter five

Development of Cognitive Items

Selecting Passages

Within the broad categories of informational text, literary text, and documents, there is a vast supply of reading materials from which to choose passages for the assessment. To obtain an even distribution of passage types and approximate the kinds of materials that students actually read, the NAEP Item Development Panel drew upon a wide range of sources, including trade books, school texts, children's literature, newspapers and magazines, and reference books. The following criteria were then used to narrow the field and guide the final selection of passages:

Concurrence With Assessment Objectives. The overarching criteria in evaluating a passage for inclusion in the assessment was whether or not it lent itself to the primary objectives of the assessment — that is, measuring students' ability to construct meaning and to extend or examine meaning from literary and informational text and their ability to locate and compare or to evaluate information from documents. In particular, the quality of a selection's content helped to determine its conduciveness to questions on these aspects of comprehension.

Content. NAEP's Item Development Panel examined several aspects of content, including literary and content richness, development, accuracy, and perceived relevance to students' interests or experiences. While recognizing that much of what students read may conform to less rigorous standards than these, the panel intended that passages included in the assessment be of high quality.

Attention was also given to the particular purposes for which each potential passage might be read and to the background knowledge and reading skills required to achieve comprehension. Passages that called for specialized background knowledge or that pertained to specific geographic regions or groups were not selected for the assessment.

Quality of Writing. The panel was also attentive to the caliber of the writing in prospective passages; each passage was therefore examined for the appropriate and skillful use of language, clarity, and cohesiveness (e.g., quality of linkages among various ideas in the text).

Difficulty. Prospective passages were analyzed for difficulty of content, concepts, and vocabulary. The panel selected passages of varying lengths and degrees of difficulty so that accurate measures of students' ability can be determined.

Format. In the interest of bridging the distance between assessment tasks and real-life activities, the 1990 reading assessment includes materials that resemble the kinds of text that students are likely to read both within and out of school. Excerpted material was selected for inclusion only when the integrity of the original text could be preserved.

Last, the panel made an effort to select some passages that could be grouped in the assessment. For example, pairs of informational readings were chosen in which each passage addressed similar content, but in a different manner; items based on these passages might ask students to compare and contrast the information provided. These efforts were undertaken because students encounter similar content in many different text genres and formats and reading from a variety of sources enhances their appreciation of the varied ways in which information may be presented. For example, students who are bored with factual accounts of the American Revolution in history texts may be intrigued with the blending of historical facts and human interest in *Johnny Tremain*. In summary, the assessment will attempt to model the kinds of reading behaviors targeted in the objectives, encouraging students to explore information from a variety of sources and points of view.

Highlighting Critical Aspects of Text

Following the selection of text passages for the assessment, the item writing process began. NAEP's Item Development Panel used the text mapping procedures described below to develop many of the items for the 1990 assessment. In those types of text that were not conducive to the mapping procedures used — for example, documents and poems — important text elements were identified through discussions among members of the Item Development Panel and the resulting information was used as the basis for item writing.

Text mapping guides item writers in highlighting critical aspects of text. Using text mapping procedures, item writers diagram each passage, producing a graphic organizer that reveals the hierarchical structure of various text elements, depicts relationships among various elements of the text, and clarifies distinctions between more and less important elements.[6] Used in literary passages, mapping first requires an identification of problem, conflict, and resolution, leading item writers to identify main themes as well as other text-specific or abstract themes in the piece. For example, in a short story, the text-specific theme might be that two characters overcome different cultural backgrounds to develop a strong friendship, despite social disapproval; the abstract theme might subsequently be classified as tolerance. Settings, characters, problems, and resolutions are all mapped, helping item writers focus on important aspects of story development.

Mapping informational passages enables the translation of important ideas into concept units and the display of relational links among these units. Thus, reasons, results, definitions, and characteristics are depicted in a way that clarifies the central purpose of the passage and highlights major and supporting ideas according to their relevance and their effectiveness in conveying information. Item writers then use the relations depicted within the text maps to generate assessment items that target meaningful aspects of informational passages.[7]

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[6] Bonnie Meyer and G. Rice, "The Structure of Text," in P. David Pearson, ed., *Handbook of Reading Research* (New York: Longman, 1984), pp. 319-51.

J.D. Novak and D.B. Gowin, *Learning How To Learn* (Cambridge, MA: Cambridge University Press, 1984).

[7] Peter Johnston, "Assessment in Reading," in P. David Pearson, ed., *Handbook of Reading Research* (New York, NY: Longman, 1984), pp. 147-82.

Writing Items

Item writers attended to a number of concerns as they generated questions and tasks for the assessment. Primary issues including the following:

- ★ the meaningfulness of content and concepts targeted in the item;
- ★ the plausibility of response distractors;
- ★ the difficulty of the item (e.g., in terms of content, concepts, or vocabulary); and
- ★ the inclusion of innovative item types (e.g., a range of open-ended items).

The Item Development Panel drew upon information from the text maps and from group discussions as it selected aspects of each passage that were worthy of item development. The items were written to focus on meaningful rather than trivial aspects of each passage, encouraging readers to think critically about the questions and reflect back on the passages before arriving at the correct answers.

The item writers also paid close attention to the difficulty of the vocabulary and concepts contained in each question. Last, item writers made the effort to include some innovative item types in the assessment, providing an alternative to the multiple-choice format. Although limited resources are available for scoring open-ended responses, some items of this type were developed for the assessment to assess students' ability to extend and examine meaning in various kinds of text.

In structuring each item set, the Item Development Panel gave consideration to the order of questions following a passage. So-called "global envisionment" questions were typically placed first, asking readers to consider the major themes or purposes of

a given passage or to construct meaning from the text. Successive questions in the "examining" or "extending" modes generally required readers to return to the text to enlarge and enrich these initial understandings. Thus, both the development of items and their organization were patterned after the kinds of comprehension strategies highlighted in the assessment objectives.

Summary

To develop an assessment that accurately reflects students' comprehension of literary and informational text and of documents, and that corresponds with the assessment framework presented in Chapter 2, the Item Development Panel created specifications for selecting passages and developing items. In choosing passages, attention was given to content, presentation, quality of writing, and difficulty. Text mapping procedures were then used to develop questions that focused on the meaningful aspects of each passage. Items are to be selected for inclusion in the 1990 assessment based on their quality, format, and difficulty, as well as the meaningfulness of the content and concepts they address.

Chapter six

Factors Influencing Comprehension

Building from previous discussions, this chapter takes a closer look at some of the variables that affect readers' ability to construct, extend, and examine meaning from text. In designing the 1990 NAEP reading assessment, three sets of factors were taken into consideration:

- ★ instructional experiences and the school context for reading;
- ★ knowledge and use of various reading strategies; and
- ★ values and attitudes toward reading.

The following sections characterize these variables in terms of their influence on reading proficiency, and Chapter 7 describes the subset of these factors to be addressed through background questions included in the 1990 reading assessment.

Instructional Experiences and School Context

The purpose of the following discussion is to review aspects of the classroom environment that appear to help students become increasingly independent and proficient readers. Four aspects of the school context for reading are thought to influence students' learning experiences: The classroom as a literate environment, students' interactions with text, the reading-writing connection, and instruction in reading strategies.

Literate Environments. Classrooms that provide "literate environments" — or that are "alive with print" — contribute to students' acquisition of literacy skills.[8] These environments demonstrate the many uses of print through prominent bulletin boards, wall charts, maps, and other informative displays, and through the availability of a wide range of trade and text books and other printed material. In these classrooms, teachers model enjoyment of literacy, offer time for independent as well as assigned reading, and provide opportunities for students to share personal reading experiences by discussing and writing about what they have read.

Interactions with Text. Teachers can influence students' growth as readers by structuring interactions with text that focus on constructing, extending, and examining meaning. Questions have traditionally been used to guide students' interactions with texts, and they send students strong messages about the purposes of reading and the nature of comprehension. Teachers may pose questions before, during,

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[8] Don Holdaway, *The Foundations of Literacy* (Sydney: Scholastic, 1979).

and after reading that encourage students to reflect on their knowledge and understandings. Questions inviting students to evaluate the actions of characters, project themselves into the roles of various characters, and relate stories to their own lives not only help students extend and examine meaning, but also enrich their literary experiences and their ability to monitor their own cognition. Asking students to identify themes or central purposes, make predictions, and elaborate or clarify aspects of the text may help them generalize behaviors that should become part of their own set of strategies for independent reading.

Discussion is also valuable because it establishes an atmosphere of collaboration in which ideas about content and reading skills can be exchanged. Response groups, retellings with partners, multimedia projects, and book discussions encourage students to communicate their knowledge and use talents creatively and reflectively in responding to text.

Providing guidance and support throughout the reading process is another way in which teachers help to structure students' interactions with text. Before reading, teachers may assess whether their students' prior knowledge is sufficient for comprehension, provide relevant new information, and help students activate existing knowledge about content or reading skills. During reading, teachers may encourage students to question themselves about comprehension, evaluate and revise predictions about the text, and employ reading skills flexibly to help construct meaning.

When activities following reading go beyond "comprehension checks" or quizzes, they may help students retain information, extend or apply previous

learning, and better manage their own reading behaviors. Students can benefit from opportunities to learn about and practice the strategies needed for successful reading.

Independent reading of books that students have chosen themselves offers another valuable interaction with text.[9] Teachers can foster independent reading by suggesting books that students might enjoy, encouraging students to recommend books to one another, and providing time in class for independent reading. Wide reading can extend students' knowledge base, help them recognize the value of literacy, increase their sensitivity to language, and strengthen their reading skills within a meaningful context.

Reading-Writing Connection. Writing offers another valuable reading-related activity, because it permits students to rethink what they know and to formulate new ideas.[10] Classroom activities that emphasize the reading-writing connection may include both personal and formal writing; students may engage in freewriting, keeping logs, and writing book reviews or study guides, as well as taking notes, summarizing, and writing reports.

As students write, they may use their reading skills to check on the accuracy and logic of what they have written and their success in communicating their thoughts. Students who write frequently have an opportunity to behave like authors; as a result, they become aware of how authors craft their work, the importance of careful word choice, audience needs, and the nuances of language.

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[9] Linda Fielding, Paul Wilson, and Richard Anderson, "A New Focus on Free Reading: The Role of Trade Books in Reading Instruction," in Taffy E. Raphael, ed., *The Contexts of School-Based Literacy* (New York, NY: Random House, 1986), pp. 149-62.

[10] The June 1988 issue of *Phi Delta Kappan* contains a series of articles on the reading-writing connection and on the importance of writing across the curriculum at all grade levels.

Timely feedback on ideas and written products from both teachers and peers helps students to clarify, revise, or reorganize their thinking in response to what they have read. When students respond to peers' writing to help them clarify and polish drafts, they apply critical reading strategies in a purposeful context.

Instruction in Reading Strategies. As students learn to manage the many strategies involved in reading, they may benefit from instruction in what strategies are available, how and when they are used, how and why they work, and how to determine whether their strategies are succeeding. These strategies extend from the most fundamental use of letter-sound correspondences to the most sophisticated techniques for "reading between the lines" of complex text.

Use of Reading Strategies

Over time, readers develop a range of strategies that allow them not only to construct meaning from what they read, but also to reason effectively and extend their understanding of information, concepts, and themes not explicitly stated in text. Their choice of strategies may vary according to the context in which reading occurs, passage characteristics, their purposes for reading, or their knowledge and experience with similar materials. Good readers recognize that they must be flexible in applying these strategies to manage reading tasks.

Skilled readers begin by evaluating reading tasks carefully and by activating their background knowledge, understandings, and expectations in light of their reading purposes. An experienced reader of mystery novels, for example, approaches a new work with a well-developed understanding of how clues will

be embedded in the prose. Throughout their reading, skilled readers automatically and recursively check on their comprehension and revise their judgments, expectations, and understandings. As the task dictates, readers may skim; check vocabulary; note headings or marginal annotations; make inferences; pause and reread to integrate information; or generate mental summaries of what they have read.[11]

Additionally, good readers realize when their comprehension has faltered; they recognize when text makes little or no sense and when the "click of comprehension" is missing. At this point, they may consciously seek new or revised strategies for constructing meaning, perhaps by using context clues or by looking ahead in the text for helpful information.

The following discussion focuses on three strategies that skilled readers use to manage their reading experiences — using the structure and organization of text, using readers' aids, and demonstrating flexibility in approaches to reading.

Uses the Structure and Organization of the Text. Readers must draw upon different elements of the text at different levels of complexity. Proficient readers are sensitive to relationships and structures that govern larger units of text. In general, these individuals "read like writers" — that is, they are guided by a sense of the structure of the particular genre (i.e., story, newspaper article, letter, research report), as well as by an understanding of the author's purpose and direction. For example, skilled readers develop an awareness of evolving plots and relationships among characters in a story, the chronological order in an historical report, or the spatial arrangement of

[11] Scott Paris, "Teaching Children to Guide Reading," in Taffy E. Raphael, ed., *The Contexts of School-Based Literacy* (New York, NY: Random House, 1986), pp. 115-30.

rows and columns in a schedule. They also attend to the relation between how a discipline is structured and how that structure is reflected in texts within that domain. Thus, readers have certain expectations for science material and different expectations for history or math material.

Good readers attend to structures within smaller portions of text and know that clauses, sentences, and paragraphs in longer works are typically linked together to express relationships among ideas or events. Sometimes the relationships are stated explicitly, as in the following sentence: "The table wobbled because one leg was shorter than the other three." At other times, the relationship is implied: "Sarah hit Jim. Jim went home crying." A sensitivity to both the explicit and implicit meanings embedded in text helps readers to construct meaning and to more fully understand authors' intended meanings.

Able readers also know that word meanings are often dependent on context. For example, these readers understand that the meaning of homonyms such as "bank," "arm," "ring," and "plant" can be determined from the context in which they occur. Vocabulary skills involve both the understanding of various dictionary meanings and the ability to choose from among those meanings according to the context in which the word is used.

Uses Readers' Aids. Many books provide visual aids that can simplify the comprehension process. These include special typography (i.e., boldface, italics); layout (i.e., headings, subheadings); illustrations (i.e., charts, graphs, drawings, photographs); and listings and guides (i.e., tables of contents, indexes, footnotes, bibliographies, glossaries). These aids serve as

references, helping to clarify ideas and offering additional information. Students may need instruction to fully understand the purpose of readers' aids and to use them effectively.

Shows Flexibility in Approach to Reading. Having a repertoire of strategies is a necessary but not sufficient condition for reading prowess. The hallmark of good reading is flexibility; skilled readers manage the reading experience by selecting those strategies most appropriate for a particular situation. Readers' purposes in approaching a piece of text influence the selection of reading strategies. For example, readers may study a textbook carefully to remember details, examine a mystery closely to discern relevant clues, reread a difficult passage to verify or question an initial interpretation, skim a newspaper article for an overall impression, read a poem orally to savor its language, scan an encyclopedia entry to locate specific information, or browse a magazine in search of an eye-catching advertisement. Good readers know that if a particular strategy does not seem to be working, they should select another.

Values and Attitudes Toward Reading

Students' values for reading and their personal attitudes toward reading influence their ability to construct, extend, and examine their comprehension. If they believe that reading can serve specific purposes in their lives and is therefore a worthwhile pursuit, individuals may work harder to achieve comprehension than if they view reading as an unimportant activity to be performed only within an instructional context. Ideally, students should view reading as a dynamic process of interacting with an author's thoughts, a tool for learning, and a source of personal fulfillment. Students who value reading and

think of themselves as readers are likely to continue to read after they leave school, and thus experience continuing opportunities for personal growth and fulfillment through reading.

The behaviors discussed below characterize a positive view of the reading process — a view in which students recognize reading as a means to expand understanding, fulfill personal goals, acquire knowledge, and learn new skills, and in which they appreciate the cultural role of written language.

Recognizes Reading as a Means to Expand Understanding and Fulfill Personal Goals. Ideas or situations encountered through reading can help individuals to better understand themselves, the people they meet, and the circumstances in which they find themselves. Whether psychological, inspirational, philosophical, historical, biographical, or fictional, such reading can be a source of enjoyment and entertainment or a means of expanding personal horizons, increasing understanding of either oneself or society, or fulfilling personal goals.

Views Reading as a Means of Acquiring Knowledge and Learning New Skills. In addition to being a source of pleasure and personal enrichment, reading serves a wide variety of utilitarian functions, ranging from those underlying daily tasks to those necessary for occupational advancement. People read to choose groceries at the store, select a movie from the entertainment section of the newspaper, or complete income-tax forms; they also read to plan vacation trips, understand the implications of daily news events, and learn new skills related to interests, hobbies, work, or school.

Reading is central to gaining information and building understanding. Throughout the school

years, textbooks, trade books, and other sources provide students with information about new topics. Once they complete their formal schooling, individuals may continue to use reading as a primary source of information and a vehicle for life-long learning.

Understands the Cultural Role of Written Language. Through wide reading experiences, students learn to appreciate the critical role of written materials in society. Words can profoundly affect individuals, and individuals, independently and collectively, change societies. As students mature, they gain an increasing sense of the interaction between written materials and society and the importance of protecting and sustaining this interaction.

Summary

The contexts in which students learn and practice reading skills shape their approaches to text and help them learn the wide range of strategies needed to manage the complexities of constructing, extending, and examining meaning. Being able to use these strategies flexibly is the hallmark of a strong reader, one who can face diverse reading tasks with confidence and skill. An additional factor in motivating students to work toward reading comprehension is the extent to which they value reading and perceive its many uses within society.

Chapter seven

Development of Background Items

As discussed in Chapter 6, research indicates that school, home, and attitudinal variables affect students' reading comprehension and literacy. Therefore, in addition to assessing how well students read, it is important to understand the instructional context in which reading takes place, students' home support for literacy, and their reading habits and attitudes. To gather such contextual information, NAEP assessments include background questions designed to provide insight into the factors that may influence reading proficiency in the literary, informational, and document categories assessed.

Two sets of background questions will be included in the 1990 reading assessment. First, every assessed student will receive a five-minute set of questions requesting basic demographic information as well as other general background information relevant to educational achievement. Second, each student participating in the reading assessment will be asked a five-minute set of background questions pertaining specifically to reading habits, strategies, instruction, and home support. Recognizing the validity problems inherent in self-reported data, the item writers give particular attention to developing questions that are

meaningful and unambiguous and will encourage accurate reporting.

Instructional Context

Researchers have found that in order for instruction to be most effective, subject matter, teaching materials and strategies, and the instructional context must be carefully orchestrated to create a meaningful and motivating learning situation.[12] Methods of evaluating student learning also affect the quality of the school experience. In collecting background information for the 1990 assessment, NAEP addresses two aspects of students' instructional experiences, discussed below.

Instructional Materials. When students encounter a variety of text types, they expand their understanding of language in general, as well as their understanding of text and its underlying structures.[13] Questions were developed asking students to report the availability of various reading materials at school — such as newspapers, magazines, textbooks, workbooks, trade books, and study guides — and the extent to which these materials are used in their classes in all subject areas.

Instructional Strategies. Teachers can maximize students' reading comprehension by providing instructional activities that prepare them for specific reading tasks.[14] For example, teachers may review vocabulary or letter-sound correspondences, link

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[12] John I. Goodlad, *A Place Called School: Prospects for the Future* (New York, NY: McGraw-Hill, 1984).

[13] Arthur N. Applebee, Judith A. Langer, and Ina V.S. Mullis, *Who Reads Best?* (Princeton, NJ: National Assessment of Educational Progress, Educational Testing Service, 1988).

[14] Scott G. Paris, "Teaching Children to Guide their Reading and Learning," in Taffy E. Raphael, ed., *The Contexts of School-Based Literacy* (New York, NY: Random House, 1984), pp. 115-30.

known information with less familiar concepts, use tools such as study guides and questions during reading, and guide students after reading to review and reconsider the meanings they have built. These activities not only support students' understanding of the text being read, but also model the ways in which students can control the meaning-building process when reading on their own. Questions were developed for the 1990 assessment that ask students the extent to which their teachers engage in various instructional activities before, during, and after reading.

Home Context

The home environment is another important determinant of students' attitudes toward literacy and schooling. The presence of parents or siblings who model and share reading and the availability of reading materials in the home are critical factors in the development of students' appreciation of reading and, ultimately, their comprehension and fluency. For example, children whose parents read for a variety of purposes at home are more likely to become readers and to understand the many uses and benefits of reading.[15] A set of background questions has been designed to capture the nature and extent of students' reading experiences in the home, including the availability of reading materials, the extent to which others in the home read, and support for reading activities.

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[15] Denny Taylor, *Family Literacy: Young Children Learning to Read and Write* (Exeter, NH: Heinemann Educational Books, 1983).

Reading Attitudes and Habits

Students' attitudes toward reading are critical to their comprehension, school success, and breadth of reading experiences.[16] Students who enjoy reading are likely to read frequently, thus developing their fluency and improving their strategies for comprehending text. These students are also more likely to become adults who read. Background questions included in the 1990 assessment therefore ask students to report on their attitudes toward reading and the extent to which they read books, magazines, newspapers, and other materials in their leisure time. Other questions ask students to describe their reading habits and strategies — for example, the strategies they use when they encounter reading difficulties.

Summary

The 1990 reading assessment collects information on students' instructional experiences, home support for literacy, and reading attitudes and habits. This background information provides for analyses of the relations between these variables and students' reading proficiency.

[16] Peter Johnston and Peter Winograd, "Passive Failure in Reading," *Journal of Reading Behavior* 17 (1985): 279-301.

Participants in the development process

The National Assessment appreciates the efforts of the many individuals who contributed to the development of the 1990 reading assessment. Special thanks are due to the members of the Assessment Development Panel and the Item Development Panel, who developed the specifications for the assessment, responded to the series of reviews, and spent long hours reviewing and revising items. The development of the 1990 reading assessment was managed and implemented by Terry Salinger, NAEP's program administrator for reading.

The National Assessment extends its deep appreciation to all participants.

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Appendix

Sample Items

This Appendix contains sample passages and items classified by type of text, aspect of comprehension, and grade level. These questions are in no way intended to represent the full range of text types and aspects of comprehension to be included in the 1990 assessment or to reflect the distribution of assessment items.

INFORMATIONAL COMPREHENSION

GRADE 4

Living in an Environment

Where you live is important. In fact, the survival of all living things depends on where they live. The surroundings of a living thing are called its *environment*. Your environment includes all the living and nonliving things that affect your life.

Ecosystems — A marsh ecosystem has several types of plants and animals. All of the same type of organisms living in a certain place make up a *population*. The populations may be large or small. The marsh grass is one population of plants. The heron, crab, and raccoon each belong to different animal populations.

All of the different populations in a given area make up a *community*. The marsh community includes many kinds of plants, mammals, birds, fish, insects, amphibians, and mollusks. These living things in a community depend on many nonliving things in their environment. Air, moisture, soil, and light are just a few nonliving things that living things need to survive.

A community and its nonliving things are called an *ecosystem*. An ecosystem can be as large as an ocean or as small as a puddle. A marsh is one example of an ecosystem.

Nonliving Things — Populations that live in the same ecosystem have common needs, such as water and shade. You would not find a water lily growing in a desert. Nor would you find a cactus growing in a pond. These plants would live in ecosystems that fit their needs. The nonliving things in an ecosystem often determine the ecosystem's community, and they can limit the type and size of a community.

Feeding Relationships — The feeding relationships in an ecosystem limit the size of populations. Food relationships begin with plants, since plants use energy from sunlight to produce their own food. For this reason, plants are known as *producers*.

The food stored in plants is eaten by animals, such as zebras. And these animals are eaten by other animals, such as lions. Therefore, zebras are *consumers* of plants, and lions are consumers of zebras. A consumer is an organism that feeds on other plants or animals. *Predators* are animals that hunt, kill, and eat other animals, which are called *prey*. For example, lions are predators and zebras are prey.

How can these feeding relationships limit the size of different populations? Suppose people kill many lions. With fewer lions to hunt zebras, the zebra population can increase rapidly. The zebras graze more, killing the grasses. With less grass to eat, many zebras may die.

"Ecosystems." *Science*, © 1988. Text on page 84. Reprinted by permission of Addison-Wesley Publishing Company, Inc., Reading, Massachusetts.

—— Questions 1–5 refer to the article on pages 49-50. ——

Mode of Reading: Constructs Meaning

1. Which of the following best tells the central purpose of this passage?

   (A) Sunlight is the most important factor in an ecosystem.
   *(B) Living things in an ecosystem depend on each other and on nonliving things.
   (C) The size of a population in an ecosystem is important for survival.
   (D) Feeding relationships depend on the number of predators in an ecosystem.

2. What is an ecosystem?

   (A) All of the living things in an area
   (B) All of the nonliving things that a community needs
   *(C) The different populations and nonliving things in an area
   (D) The nonliving things and water in an area

3. What do the living things in an ecosystem have in common?

   (A) They all eat the same food.
   *(B) They need many of the same non-living things.
   (C) They are all similar in size.
   (D) They are all predators.

4. Why are plants known as producers?

   (A) Plants provide food for other living things.
   *(B) Plants make their own food.
   (C) Plants provide oxygen for the ecosystem.
   (D) Plants are eaten by predators.

Mode of Reading: Extends or Examines Meaning

5. What will happen if too many predators in an ecosystem are killed?

   (A) The grasses will not be eaten.
   (B) The oxygen supply will be limited.
   (C) Producers will not be able to make enough food.
   *(D) The amounts of different kinds of food in the ecosystem will be changed.

*Correct answers for multiple-choice items are indicated by an asterisk (*).

GRADE 8

Wow, Can She Throw That Ball!

by Sue Macy

In late spring 1946, twenty-year-old Ruth Williams arrived in Chicago, Illinois, covered with soot and clutching a baseball glove. The soot was proof of Ruth's thousand-mile ride in a coal-burning train. The baseball glove was one of the tools of her trade.

Ruth was about to begin an eight-year career as a professional baseball player. She had left her home in Pennsylvania to try out for the All- American Girls Baseball League (AAGBL)—the nation's first women's professional league. Within ten days, Ruth would be pitching for the Fort Wayne (Indiana) Daisies.

Ruth had never heard of the AAGBL until the spring of 1946, but in the Midwest, the league had been news since 1943. That is when Chicago Cubs owner Philip K. Wrigley announced his plan: He would start a women's baseball league "to furnish additional means of healthful recreation to the public who are...under severe pressure from war work."

Wrigley had been thinking about starting a women's league for more than a year. He knew that women's softball games were drawing thousands of fans in the United States and Canada. He also knew that World War II was hurting major-league baseball. Some of the best players were leaving their teams to join the Army and the Navy.

Wrigley was worried that President Franklin Roosevelt would call off major-league ball until the war was over. Even if that did not happen, he feared that men's baseball games would be less popular without the top players. He was afraid fans would turn away from the game, so he came up with a substitute.

In May 1943, Wrigley held tryouts for the AAGBL at Wrigley Field in Chicago. Cub baseball scouts had invited 280 women to compete for places on the league's four teams. By the end of the month, sixty-four women had been chosen for the teams.

There were differences between the men's and women's games. At first, the AAGBL used a twelve-inch ball and underhand pitching, but almost every year, rule changes brought the AAGBL's game closer to baseball. By 1954, the league was using a standard nine-and-a-quarter inch ball, overhand pitching, and rules similar to those in the major leagues.

At the start, Philip Wrigley paid his players fifty-five to eighty-five dollars a week, plus meal money. The AAGBL's season began with spring training in May and ended with the play-offs in early September. Teams played from 110 to 126 games each summer, with no days off.

By the time Ruth Williams joined the Fort Wayne Daisies in 1946, the league had expanded from four to eight teams. In 1948, it would expand to ten teams. That year, a total of one million fans would come to its games.

The women of the AAGBL were never as famous as other sports stars of the time. Ruth Williams says that did not bother her, however. "I was just so wrapped up in what I was doing," she says. "I was so thrilled to be a part of it. To think I was getting paid to do something I just loved to do."

Ruth continued playing in the AAGBL through the 1953 season, when she quit to get married. "My husband said he wasn't going to follow me around," Ruth remembers. "But I was about to throw in the towel anyway. I was getting old enough to settle down."

The directors of the AAGBL "threw in the towel" soon after Ruth did. The league played its 1954 season with only five teams, then folded.

Some historians say hard economic times kept fans from going to games during the league's last years, but most of the blame for the AAGBL's downfall can be placed on a new invention—television. By the early 1950s, many TV stations were showing major-league baseball games, and many AAGBL fans stayed home to watch the male pros.

Even after the league folded, many of its players stayed in sports. Ruth Williams Heverly (her married name) became a physical education teacher. She also kept her pitching arm in shape.

"My husband and I used to play catch in the parking lot of our apartment house," Ruth remembers. "One day, a friend in the building said something about our playing. My husband asked, 'How do you know?' And she told him, 'Half the apartment watches when you play.' People are always saying, 'Wow, can she throw that ball!'"

From *Cobblestone's* July, 1985, issue: "*Cobblestone* Takes You Out to the Ball Game." © 1985, Cobblestone Publishing, Inc., Peterborough, NH 03458. Reprinted by permission of the publisher.

Questions 1–4 refer to the article on pages 52-53.

Mode of Reading: Constructs Meaning

1. Philip Wrigley's main reason for starting a women's baseball league was

   (A) to help women earn more money in professional sports
   (B) to convince the President that spectator sports were important during the war
   (C) to give women softball players a chance to become famous professionals
   *(D) to keep baseball popular while male players were fighting in the war

2. All of the following are possible explanations for the end of the women's baseball league EXCEPT

   (A) Economic hard times in the early 1950s
   (B) The influence of television
   (C) Attitudes toward women athletes
   *(D) The beginning of World War II

Mode of Reading: Extends or Examines Meaning

3. Why did the author write about Ruth Williams' life rather than just provide facts about the All-American Girls' Baseball League?

   *(A) Information on Ruth Williams' life makes it easier to understand what it must have been like to be a woman baseball player.
   (B) Ruth Williams was the most famous player in the AAGBL.
   (C) Writing about Ruth Williams' life points out that most male baseball players were in the war.
   (D) Information about Ruth Williams' life shows how different the women's league was from the men's leagues.

4. What does the article suggest about the lives of women athletes during the 1940s and 1950s?

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_____

*Correct answers for multiple-choice items are indicated by an asterisk (*).

GRADES 8 AND 12

The Battle for the Ballot

by Peter McGuiness

The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.
— Fifteenth Amendment to the Constitution of the United States, 1870.

One of the most important of the rights of a citizen is the right to vote. Prior to the Civil War, Black Americans, whether slaves or free, were only allowed to vote in six states in the Northeast. It was during the Reconstruction Period, after the Civil War, that southern Black men gained the franchise, or the right to vote. The Fifteenth Amendment, affirming this right, was ratified by the states in 1870. As a result, Black citizens held political power in the South for the first time. They registered, voted, and were elected to public office in every southern state.

At the same time, however, Black Americans increasingly became victims of violence and intimidation. The southern states, meanwhile, began to devise laws to prevent Black citizens from voting. These states could not directly defy the law of the Fifteenth Amendment, but they found several ways to get around the law. They denied voting rights to Black people through such obstacles as the literacy test, the "grandfather clause," the poll tax, and the white primary.

The literacy test required a voter to be able to read any section of the state constitution or to be able to understand it when it was read to him. Because it had been illegal for slaves to learn to read, very few Black men could read and so most could not pass the test. In addition, dishonest examiners had the power to pass illiterate White Americans while failing Black Americans, no matter how educated the Black individuals were.

Louisiana originated the grandfather clause, which said that a man could vote only if his father or grandfather had been a voter on January 1, 1867. In 1867, no Black person in the South had been a voter, so the grandfather clause eliminated the Black voting right.

The poll tax was yet another way to deprive Black Americans of the voting right. Since most were poor sharecroppers or tenant farmers, they could not afford to pay a tax in order to register to vote. Many poor White individuals were also prevented from voting by the poll tax.

Perhaps the most effective method of denying political participation to Black citizens was the White primary. The Democratic party held power throughout the South, and any candidate nominated for office by that party was almost guaranteed to win the

election. But the party excluded Black persons from membership. This meant that Black citizens had no chance either to choose or to become candidates.

By 1900, Black voting rights in the former Confederate states had all but disappeared. But soon many Black people began to demand justice. Organizations such as the National Urban League and the National Association for the Advancement of Colored People (NAACP) were established in the early 1900s to help the Black population fight for civil rights. Although discrimination continued, gains were made.

The NAACP won its first major legal case in 1915 when the United States Supreme Court outlawed grandfather clauses. Another important victory was won in 1944 when the Court ruled that the White primary violated the right to vote. In later years, as more Black citizens became voters, the importance of winning Black votes convinced some officials to pay closer attention to the rights and needs of Black citizens.

The period from 1957 to 1968 saw the greatest improvements for Black Americans' voting rights since the Civil War. The Civil Rights Acts of 1957 and 1960 and the Twenty-fourth Amendment, passed in 1964, outlawed discriminatory voting laws and stated that persons who denied Black individuals their voting rights would be taken to court.

But obstacles still remained. Early in 1965, for example, civil rights workers in Selma, Alabama, were bullied, threatened, and arrested while trying to register Black voters. In protest, Dr. Martin Luther King, Jr. led some 40,000 marchers from Selma to the state capitol at Montgomery. Later that year, as a result of protests such as this, Congress passed the Voting Rights Act of 1965. The act eliminated all discriminatory tests for those registering to vote and guaranteed federal protection to all voters.

The history of Black voting rights has been one of constant struggle. Only within the past 25 years have Black Americans gained their full voting rights under the law. Using the power of the franchise, Black citizens now continue their effort to gain full equality in all areas of American society.

From *Cobblestone*'s February, 1983, issue: "Black History Month: The Struggle for Rights." © 1983, Cobblestone Publishing, Inc., Peterborough, NH 03458. Reprinted by permission of the publisher.

——— Questions 1–4 refer to the article on pages 55-56. ———

Mode of Reading: Constructs Meaning

1. What is the central purpose of this article?

   (A) To report how Black Americans lost the right to vote in the South early in this century
   (B) To report how voting rights were achieved in the United States
   (C) To report on the obstacles that prevented full voting rights for poor people in America
   *(D) To report on the difficulties that Black Americans faced in obtaining full voting rights

2. Which of the following factors was most important in resolving the battle for the ballot?

   (A) People's concern for the economy
   (B) Civil war and political power
   *(C) Court decisions and laws
   (D) Rising opportunities for Black workers

3. The passage of the Fifteenth Amendment produced which of the following results?

   (A) Literacy tests were designed to allow Black citizens to become eligible to vote.
   (B) Black grandfathers became eligible to vote.
   *(C) State laws were enacted that prevented Black citizens from voting.
   (D) Local civil rights laws were proposed.

Mode of Reading: Extends or Examines Meaning

4. According to this article, what had caused voting rights for Black citizens to disappear from the South by 1900?

   *(A) A fear that Black citizens would gain political control
   (B) The establishment of civil rights organizations
   (C) The passage of the Fifteenth Amendment
   (D) Supreme Court decisions abolishing Black citizens' voting rights

*Correct answers for multiple-choice items are indicated by an asterisk (*).

LITERARY COMPREHENSION

GRADE 4

The Invisible Present
by Penny Pollock

Oliver Possum sent a birthday invitation to each of his friends.

The mail carrier delivered them all safely — except for the one that slipped from the mail pouch. That invitation, the one for Amanda Mouse, fell by the trail and was covered by falling leaves.

On the day of the party, Amanda Mouse was busy arranging her cupboards — sugar here, spices there. Then the phone rang.

"Aren't you coming?" said Oliver.

"Where?" asked Amanda.

"To my party," Oliver said. "It's started already."

"Party?" Amanda said. "I'll be right there."

She pinned a polka dot bow on her head and set off. But as soon as she set foot in Oliver's house, Amanda knew she was in trouble. Oliver's party wasn't just any kind of party; it was a birthday party. And she hadn't brought a present.

"I think I'd better go home," she said.

"Nonsense," said Oliver. "We've been waiting for you so we could play Drop the Clothespin."

Drop the Clothespin was Amanda's favorite game, and usually, she was the champ. But today she couldn't drop a single clothespin in the bottle. She kept looking at the mound of presents and worrying. It was a terrible thing to go to a birthday party without a present.

When they played Pin the Tail on the Donkey, Amanda pinned the tail on the couch.

Art by Lynn Munsinger

When they played Peanut Hunt, all she found was an empty shell.

Then it was time for Oliver to open his presents.

While the other guests crowded around Oliver and his pile of gifts, Amanda wrapped her tail around herself for comfort. But it didn't help. When Oliver discovered she hadn't brought a gift, he'd wonder what kind of a friend she was.

Leena Lizard tied a blindfold around Oliver's eyes so he'd have to guess what was in each box. He felt his presents one by one and guessed. A toy horn? A rubber ball? A jar of taffy?

After all the boxes had been opened, Leena said, "Where's your present, Amanda?"

Amanda pulled hard on her tail and felt miserable. "I. . . I. . .," she stammered. Then she had an idea. "My present is *really* hard to guess," she said.

Oliver held out his paws for her gift. "I can't feel it," he said, pinching the air.

"You will," Amanda said.

"I can't smell it," Oliver said, twitching his nose.

"You will," Amanda said.

"I can't taste it," Oliver said, sticking out his tongue.

"You will," Amanda said.

"I give up," cried Oliver and slipped off his blindfold.

"It's a promise," Amanda said.

"A promise of what?" Oliver asked.

"To make cookies with you at my house."

"Wonderful!" Oliver exclaimed. "When?"

"Tomorrow morning at six."

Amanda was still in her pajamas when Oliver arrived. Together they measured sugar and sifted flour. They stirred and mushed and rolled and used lots of sprinkles.

The doorbell rang as the last tray came out of the oven. Leena Lizard and all of Oliver's birthday guests were at the door.

"We came to see if Amanda kept her promise," Leena said.

"Of course she did," said Oliver. "Friends always do."

Then they all ate the cookies. Every last sprinkle.

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Questions 1–5 refer to the story on pages 58–60.

Mode of Reading: Constructs Meaning

1. What is a good summary of the story?

   (A) Guests at Oliver Possum's party hurt Amanda Mouse's feelings by laughing because she didn't have a gift.
   (B) Oliver Possum goes to Amanda Mouse's house early to make sure she will keep her promise.
   *(C) By thinking quickly, Amanda Mouse avoids hurting her friend's feelings.
   (D) The other guests at the party doubt that Amanda Mouse will keep her promise to make cookies.

2. What is the central theme of the story?

   *(A) Doing something special with a friend is a very good gift.
   (B) Feeling sorry for yourself can lead you to make mistakes in games.
   (C) Even if you are not prepared for a party, it can still be fun.
   (D) Quick thinking is always the best way to solve problems.

3. What was Amanda Mouse's biggest worry at the party?

   (A) She hadn't been invited to the party in the first place.
   (B) She wasn't able to do well in the party games.
   *(C) Oliver would think that she wasn't a good friend.
   (D) The other guests wouldn't like her.

4. Amanda was able to solve her problem by

   (A) pretending that she needed to go home
   *(B) coming up with a good idea
   (C) making the other guests feel sorry for her
   (D) blaming the mail carrier who lost her invitation

Mode of Reading: Extends or Examines Meaning

5. Write a sentence or two telling how Oliver felt about Amanda's gift.

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*Correct answers for multiple-choice items are indicated by an asterisk (*).

GRADES 8 AND 12

A Day's Wait

by Ernest Hemingway

He came into the room to shut the windows while we were still in bed and I saw he looked ill. He was shivering, his face was white, and he walked slowly as though it ached to move.

"What's the matter, Schatz?"

"I've got a headache."

"You better go back to bed."

"No. I'm all right."

"You go to bed. I'll see you when I'm dressed."

But when I came downstairs he was dressed, sitting by the fire, looking a very sick and miserable boy of nine years. When I put my hand on his forehead I knew he had a fever.

"You go up to bed," I said. "You're sick."

"I'm all right," he said.

When the doctor came he took the boy's temperature.

"What is it?" I asked him.

"One hundred and two."

Downstairs, the doctor left three different medicines in different colored capsules with instructions for giving them. One was to bring down the fever, another a purgative, the third to overcome an acid condition. The germs of influenza can only exist in an acid condition, he explained. He seemed to know all about influenza and said there was nothing to worry about if the fever did not go above one hundred and four degrees. This was a light epidemic of flu and there was no danger if you avoided pneumonia.

Back in the room I wrote the boy's temperature down and made a note of the time to give the various capsules.

"Do you want me to read to you?"

"All right. If you want to," said the boy. His face was very white and there were dark areas under his eyes. He lay still in the bed and seemed very detached from what was going on.

I read aloud from Howard Pyle's *Book of Pirates*, but I could see he was not following what I was reading.

"How do you feel, Schatz?" I asked him.

"Just the same, so far," he said.

I sat at the foot of the bed and read to myself while I waited for it to be time to give another capsule. It would have been natural for him to go to sleep, but when I looked up he was looking at the foot of the bed, looking very strangely.

"Why don't you try to go to sleep? I'll wake you up for the medicine."

"I'd rather stay awake."

After a while he said to me, "You don't have to stay in here with me, Papa, if it bothers you."

"It doesn't bother me."

"No, I mean you don't have to stay if it's going to bother you." I thought perhaps he was a little lightheaded and after giving him the prescribed capsules at eleven o-clock I went out for a while.

It was a bright, cold day, the ground covered with a sleet that had frozen so that it seemed as if all the bare trees, the bushes, the cut brush and all the grass and the bare ground had been varnished with ice. I took the young Irish setter for a little walk up the road and along a frozen creek, but it was difficult to stand or walk on the glassy surface and the red dog slipped and slithered and I fell twice, hard, once dropping my gun and having it slide away over the ice.

We flushed a covey of quail under a high clay bank with overhanging brush and I killed two as they went out of sight over the top of the bank. Some of the covey lit in trees, but most of them scattered into brush piles and it was necessary to jump on the ice-coated mounds of brush several times before they would flush. Coming out while you were poised unsteadily on the icy spring brush they made difficult shooting and I killed two, missing five, and started back pleased to have found a covey close to the house and happy there were so many left to find on another day.

At the house they said the boy had refused to let any one come into the room.

"You can't come in," he said. "You mustn't get what I have."

I went up to him and found him in exactly the position I had left him, white-faced, but with the tops of his cheeks flushed by the fever, staring still, as he had stared, at the foot of the bed.

I took his temperature.

"What is it?"

"Something like a hundred," I said. It was one hundred and two and four tenths.

"It was a hundred and two," he said.

"Who said so?"

"The doctor."

"Your temperature is all right," I said. "It's nothing to worry about."

"I don't worry," he said, "but I can't keep from thinking."

"Don't think," I said. "Just take it easy."

"I'm taking it easy," he said and looked straight ahead. He was evidently holding tight onto himself about something.

"Take this with water."

"Do you think it will do any good?"

"Of course it will."

I sat down and opened the Pirate book and commenced to read, but I could see he was not following, so I stopped.

"About what time do you think I'm going to die?" he asked.

"What?"

"About how long will it be before I die?"

"You aren't going to die. What's the matter with you?"

"Oh, yes, I am. I heard him say a hundred and two."

"People don't die with a fever of one hundred and two. That's a silly way to talk."

"I know they do. At school in France the boys told me you can't live with forty-four degrees. I've got a hundred and two."

He had been waiting to die all day, ever since nine o-clock in the morning.

"You poor Schatz," I said. "Poor old Schatz. It's like miles and kilometers. You aren't going to die. That's a different thermometer. On that thermometer thirty-seven is normal. On this kind it's ninety-eight."

"Are you sure?"

"Absolutely," I said. "It's like miles and kilometers. You know, like how many kilometers we make when we do seventy miles in the car?"

"Oh," he said.

But his gaze at the foot of the bed relaxed slowly. The hold over himself relaxed too, finally, and the next day it was very slack and he cried very easily at little things that were of no importance.

Reprinted with permission of Macmillan Publishing Company from *The Snows of Kilimanjaro* by Ernest Hemingway. Copyright © 1933 by Charles Scribner's Sons, renewed 1961 by Mary Hemingway.

Questions 1–5 refer to the story on pages 62-64.

Mode of Reading: Constructs Meaning

1. The misunderstanding presented in this story concerns

   (A) the difference between French and American schools
   (B) the kind of medication that should be given for influenza
   (C) the amount of rest a sick child actually needs
   *(D) the difference between Fahrenheit and Centigrade

2. When Schatz says that he "can't keep from thinking," he is referring to

   (A) how bad he feels because of his influenza
   (B) whether other people in the house will be sick
   *(C) when he is going to die
   (D) when he has to take his medication next

3. Why does the father believe that something more than the flu is bothering the boy?

   (A) Schatz was shivering and his face was white.
   *(B) Schatz stared at the foot of his bed and would not sleep.
   (C) Schatz had a temperature of 102°.
   (D) Schatz dressed and sat by the fire.

4. When Schatz tells his father his concern that "it's going to bother you," the word "it" refers to

   *(A) the fact that he expects to die soon
   (B) his father's spending time reading to him
   (C) the cost of the three kinds of medication
   (D) his father's having to remember to give him pills

Mode of Reading: Extends or Examines Meaning

5. Why do you think the boy "cried very easily at little things" the next day?

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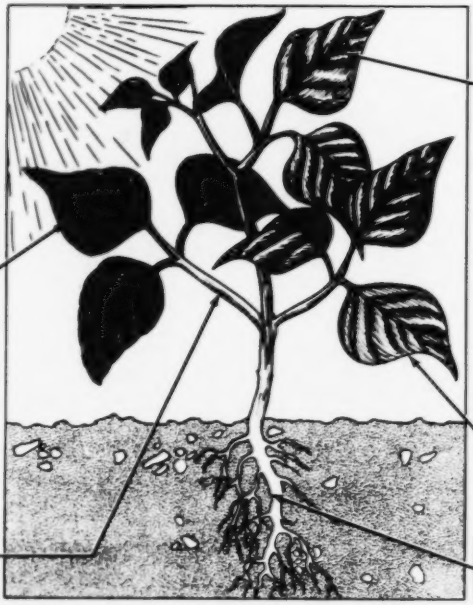
*Correct answers for multiple-choice items are indicated by an asterisk (*).

DOCUMENT LITERACY

GRADE 4

Plants Make Food

PHOTOSYNTHESIS



4. Food and oxygen are made in the leaves. Some of the food is used, and some is stored.

3. Chlorophyll contained in the leaves collects the Sun's energy to make food. Carbon dioxide enters the leaves from the surrounding air.

5. Oxygen leaves the plant and enters the air through tiny holes under the leaves.

2. Water and minerals travel through the stems to the leaves.

1. Water and minerals enter the plant through the roots.

Questions 1–5 refer to the figure on page 66.

Mode of Reading: Locates and Compares Information

1. According to the figure, plants use chlorophyll to

   *(A) collect the sun's energy
   (B) collect water
   (C) store oxygen
   (D) protect themselves from the sun

2. According to the drawing, where are food and oxygen made?

   (A) Under the leaves
   (B) In the chlorophyll
   (C) In the stems
   *(D) In the leaves

3. How are steps 2 and 4 alike?

   (A) They show why minerals are important to plants.
   (B) They do not need chlorophyll.
   *(C) They show what happens inside plants.
   (D) They are about making food.

Mode of Reading: Evaluates Information

4. Why is chlorophyll important to people?

   *(A) It helps plants make food that people may eat.
   (B) It helps plants collect minerals so they taste better.
   (C) It makes spores on plants for people to collect.
   (D) It keeps weeds from growing too tall in people's gardens.

5. What is photosynthesis?

   (A) The way that plants reproduce
   (B) The process of gathering rain from soil
   *(C) Using sunlight to make food
   (D) A type of leaf

*Correct answers for multiple-choice items are indicated by an asterisk (*).

GRADES 8 AND 12

——— Questions 1–3 refer to the brochure on page 69. ———

Mode of Reading: Locates and Compares Information

1. According to the information provided, people are admitted to Independence Hall

   (A) through the Visitor Center
   (B) through the Todd House
   (C) by the Park Rangers
   *(D) by tour only

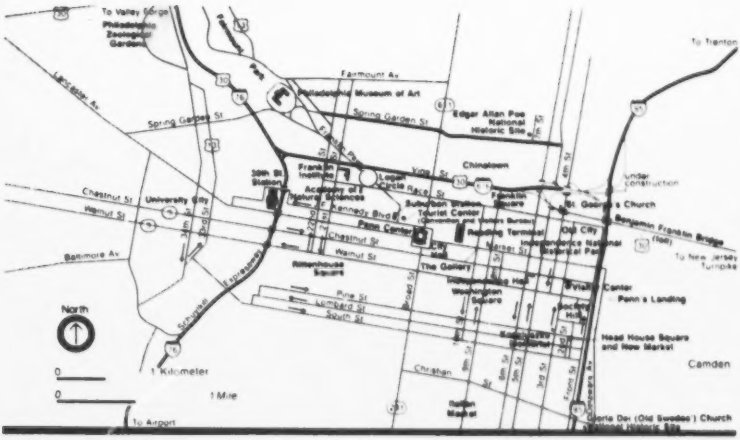
2. According to the information provided, the Park Rangers offer which of the following services?

   (A) They change the hours for admission to the park.
   (B) They control traffic on Philadelphia's busy streets.
   *(C) They provide information on special services for individuals with disabilities.
   (D) They distribute maps to people from out of state and provide travel recommendations.

3. Under which of the following major headings can you find information about how the park is administered?

   *(A) For More Information
   (B) Hours and Admission
   (C) For Your Safety
   (D) Planning Your Tour

*Correct answers for multiple-choice items are indicated by an asterisk (*).



Visiting the Park

How to Reach the Park Each of the following sets of directions will lead you to the parking garage on 2d Street between Chestnut and Walnut Streets. **Eastbound** via I-76 (Schuylkill Expressway): Exit at Vine Street (I-676 and U.S. 30) and follow to 6th Street. Turn right on 6th and follow to Chestnut (3 blocks). Turn left on Chestnut and follow to 2d Street. Turn right on 2d Street. **Westbound** via Benjamin Franklin Bridge (U.S. 30): As you come off the bridge, follow the signs to 6th Street (south). From there, follow the same directions as outlined for Eastbound to reach 2d Street. **Southbound** via I-95: Take the Center City exit to 2d Street. **Northbound** via I-95: Use the exit marked "Historic Area." Continue straight ahead to Reed Street. Turn right on Reed and follow to Delaware Avenue. Turn left on Delaware Avenue and follow to the exit for Market Street (on right). When you reach Market, make an immediate left onto 2d Street.

Planning Your Tour Although it is small in total area, the park contains a variety of sites that cannot easily be seen in one day. If you have only a short time to spend, we urge you to visit Independence Hall and the Liberty Bell Pavilion first. If you have more time, here are some additional suggestions on what to see.

Half-Day Tour
Visitor Center
Carpenters' Hall (exterior)
Independence Hall
Liberty Bell Pavilion
Franklin Court

Full-Day Tour
Visitor Center
Carpenters' Hall
Independence Hall
Congress Hall
Old City Hall
Graff House
Liberty Bell Pavilion
Franklin Court
Second Bank of the United States

Where to Start Begin your tour at the visitor center by seeing the 28-minute film, "Independence." Here, too, park rangers can answer your questions and help you to plan your visit. They can also provide information concerning special services for non-English-speaking visitors and for those with disabilities. To help you enjoy the park more fully, books and maps are available at bookstores in the visitor center and the west wing of Independence Hall.

Hours and Admission Most park buildings are open from 9 a.m. to 5 p.m. daily. These hours, however, are subject to change without notice. During the summer some buildings remain open into the evening.

Admission to Independence Hall, the Bishop White House, and the Todd House is by tour only. Tickets for the Bishop White House and the Todd House should be obtained at the visitor center on the day of your visit. No tickets are required for tours of Independence Hall. Admission is on a first-come, first-served basis. Note: From early May to Labor Day, when park visitation is greatest, waiting time for tours of Independence Hall can range from 15 minutes to one hour. Plan your time accordingly.

For Your Safety Don't let your visit be spoiled by an accident. Please be careful crossing Philadelphia's busy streets and watch your step on brick walkways and cobblestone surfaces.

For More Information The park is administered by a superintendent, whose address is 313 Walnut St., Philadelphia, PA 19106. For information write the superintendent or call (215) 597-8974. An "Accessibility" folder is available for those with special needs. A National Park Service guidebook can be purchased at park bookstores or by contacting Eastern National Park and Monument Association at the above address.

(Reduced from original copy).

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